

Knittel, Janette

From: Knittel, Janette
Sent: Friday, April 23, 2021 10:35 AM
To: 'Tasya Gray'
Subject: Former Rhone Poulenc RTC table
Attachments: RTC_FRP Draft Pre-CMS WP QAPP_2021-04-23.xlsx

Follow Up Flag: Follow up
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Categories: FOIA, Rhone-Poulenc, Print or Save

Tasya,

Thank you for discussing my questions this morning. Attached is the spreadsheet with EPA's responses that you can use to produce final versions of the work plan and QAPP. Feel free to call or email with any questions.

-Janette

From: Tasya Gray <ngray@dofnw.com>
Sent: Thursday, April 22, 2021 8:03 AM
To: Knittel, Janette <Knittel.Janette@epa.gov>
Subject: Former Rhone Poulenc Redline

Hi Janette,

Here is the comment tracking table and the redline of the Former Rhone Poulenc draft Work Plan and revised QAPP. Note I added a tab to the excel sheet to include backup info related to one comment. Please feel free to give me a call to discuss if any of our responses are not clear.

Thanks,

Tasya

Tasya Gray, LG

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**EPA Comments for the
Draft Pre-CMS Data Collection Work Plan dated April 5, 2021
Former Rhone Poulenc Facility, WAD 00928 2302**

Comment Number	Page(s)	Section	Location	EPA Comment (4/14/21)	DOF Response (4/22/22)	EPA Response (4/23/21)	DOF Response (4/xx/21)
1		General		The work plan must include further statements about the purpose and importance of pumping cessation, and what would be gained beyond that it will "allow for better evaluation of contaminant concentrations and migration." The work plan must also include further acknowledgement of EPA's expectation of a corrective measure that is not reliant on the HCIM. Section 2.1 says the information from pumping cessation will be useful to, "potentially allow for choosing a corrective measure that does not rely on the HCIM as a long-term solution." This statement acknowledges a goal of a corrective measure not relying on the HCIM, so then what is the necessity of knowing whether cross-wall migration is occurring, if the wall is not part of the solution? As a reminder, the HCIM, which includes both the wall and the pumping system, was never intended to be a final corrective measure. The EPA expects a corrective measure that addresses the contamination inside and outside the wall and therefore eliminates the need for the HCIM. Over time as the wall ages or in the event of a catastrophic failure, contaminants could be discharged from the area contained by the wall. The contaminants inside the wall must be treated, removed, or otherwise permanently controlled.	Section 2.1 has been amended to focus on the technical merits of the collecting data while pumping is off to explain why collecting data to evaluate the effect of the presence of the wall on the site groundwater conditions is valuable. The wall is one of the subsurface features that influences and will continue to influence the site conceptual model and must be considered as part of the basis for remedial design. The work proposed includes collecting data inside and outside the wall to inform the conceptual model, as EPA has stated is necessary for remedy design.	Accepted [additional general comment: add the Revised Quality Assurance Project Plan (DOF, 2021) to the References section. See similar comment in QAPP comments table.]	
2	v, 4	Acronyms, 2.3	first bullet	PRG means Preliminary Remediation (not Remedial) Goal. Correct the term in these locations and others if necessary.	Acronyms & Abbreviations section and Section 2.3 have been revised	Accepted	
3	1	1.1	second paragraph	This section states that, "A draft CMS Work Plan was prepared in 2014 and several investigations and studies have been conducted since that time." There have been several investigations and studies over the years but not since 2014 except for the CO2 pilot study. Correct the text accordingly.	Text revised accordingly.	Accepted	
4	3	2	first and second bullets	The first two objectives should say "Collecting information that can be used for future evaluation of..." Edit accordingly.	Requested language added.	Accepted	
5	3	2.2	first paragraph	The term "disproportionate costs" is not clear. Please clarify in the text.	Section 2.2 has been modified to clarify.	Accepted	
6	4	2.3, All	first paragraph	As a reminder, EPA did not approve the draft CMS work plan and therefore DOF (and others) must be prudent in using conclusions presented in that document. For example, this section states that "The 2014 work plan concluded that sources are related primarily to the historical manufacture of artificial vanilla flavoring, or vanillin, through chemical processing of wood cellulose." EPA believes that while vanillin manufacturing was an obvious contributor to sources of contamination, it very likely was not the only one. This section implies that the other sources are insignificant or that the contamination is not a result of operations prior to vanillin manufacturing. Correct this paragraph to reflect this comment, and consider this reminder anywhere else the work plan references the draft CMS work plan.	Section 2.3 has been modified accordingly and noted for the future.	Accepted	
7	All	2.3, 3.3, All		In Sections 2.3 and 3.3, and throughout the work plan, ensure that the text always refers to the Agency Draft Corrective Measures Study Work Plan as "draft," because it was never finalized and may contain information that is incorrect or not approved by EPA.	References to the 2014 Agency Draft CMS Work Plan have been updated throughout the Work Plan.	Accepted	
8	4	2.3.1	second sentence	It seems like a word is missing after "groundwater" (perhaps contaminant?).	Sentence revised to address.	Accepted	
9	6	2.3.1		Under the screening of historical highs subheading, text relating to soil states, "Constituents that only exceeded the PRG protective of groundwater were not included if they were not identified as a constituent of potential concern in soil via the above process." Without having the entire PRG package, the reasoning for the exclusion of constituents with detections above only the protection of groundwater PRGs is out of context. EPA appreciates that DOF included relevant PRG tables in this work plan, but for completeness EPA would like the full set of tables and the writeup that accompanied the tables included, perhaps as an appendix.	Attachment 2 has been updated to include the full writeup and PRG tables provided by EPA. The tables of Attachment 3 have been updated with notes to clarify the comparisons made in the table and summarized in Section 2.3.1 of the Work Plan text.	Accepted	

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10	6	2.3.1, Table 2 in Attachment 3		Under the screening of historical highs subheading, text relating to soil states, "Constituents that only exceeded the PRG protective of groundwater were not included if they were not identified as a constituent of potential concern in soil via the above process." For approximately half of the constituents that are listed on the bottom half of page 6, Table 2 in Attachment 3 indicates that these only exceeded one or both of the EPA RSL Soil Screening Levels to Protect Groundwater and not other soil criteria. Either correct the discrepancy, or clarify why these constituents are listed.	Soil constituents that were only detected above a screening level protective of groundwater were still included in the list in the text if those compounds were also detected in groundwater above a draft PRG for groundwater. They were also included in the list if no groundwater data were readily found in the project database or historical data summaries provided by EPA (Attachment 2). The text was slightly revised in this section to correct and clarify this approach.	As we discussed, add information to this section to be clear about every step DOF took in screening the soil constituents.	
11	8	2.3.2.4	first paragraph	A word is missing from the first sentence, after "2006." Please edit accordingly.	This sentence has been revised accordingly.	Accepted	
12	9	2.3.3		Add a short discussion of how contaminants may have changed over time, such as any general increase or decrease in areas inside or outside the wall.	A short discussion has been added to Section 2.3.3 providing discussion of long term trend observations and recent data.	Accepted	
13	10	3.2	second paragraph	Correct "outline" to "outlined".	This sentence has been revised accordingly.	Accepted	
14	10	3.2	second paragraph	Add more general discussion about what triggers turning back on the system. For example, is there specific information that you need to collect before this study is complete? If so, then when you have completed that collection, would you turn it back on in 3 months instead of 6? Or are you planning to shut down at 6 months regardless of the amount of data or results thus far? DOF will require approval from EPA to continue the pumping cessation past 6 months.	Additional text has been added to Section 3.2 to provide additional detail requested by the comment.	Accepted	
15	10-11, 13, Figure 6	3.2.2, 4.2	first paragraph	The explanation in the first paragraph of where water levels will be collected is confusing. Adjust Figure 6 (or add to Table 1 or 2) to show which wells are the final set of wells with transducers for this investigation, and which well measurements are to be collected hourly, monthly, or quarterly. Section 3.2.2 says that the transducer will be moved from MW-47 to MW-54, but Section 4.2 says MW-47 will have a transducer but does not mention MW-54. Correct the discrepancy.	Figure 6 has been updated to show the location of the transducers and is consistent with the Work Plan text. Section 4.2 was updated to include MW-54 (MW-47 removed).	Accepted	
16	Figure 6, Figure 7, Attachment 1	3.2.1, 3.2.3		Figure 6 shows water level monitoring to occur in the inside-outside pair of A2 U and MW-59 U. Figure 7 shows analytical monitoring in MW-59 U for select metals, but no analytical monitoring in A2 U. Based on Figures in Attachment 1, A2 U hasn't been sampled recently, and had a historical copper concentration above the PRG. Seems like A2 U should also be monitored for select metals both as part of the data gap groundwater collection (described in Section 3.3) to assess changes in groundwater chemistry and the potential for migration across the barrier wall at this location as it relates to the Temporary Groundwater Pumping Cessation (described in Section 3.2). Include this well as suggested or provide a response to this comment explaining why DOF does not believe it should be included.	Select metals analysis has been added to Figure 7 and Table 1 for baseline sample collection. Post-baseline monitoring of this location during the period of pumping cessation is not necessary because groundwater flow direction is expected to be toward the river and monitoring of MW-47 will provide relevant information.	Accepted	
17	11	3.2.3		This section discusses how general parameters will be used to assess whether there is migration to outside the wall. Are there controls in place for determining whether the observed changes are a result of movement across the wall versus water coming up through the aquitard or changes in environmental conditions from an outside influence? If so please add to the work plan.	Additional text has been added to Section 3.2, 3.2.2, and 3.2.3 to clarify how assessment will be performed.	Accepted	
18	13-14	4		Indicate if investigation-derived waste will be generated and identify any required parameters for disposal.	Statements were added to sections 4.2 and 4.3 to state purge water, decontamination water, and redevelopment water will be processed through the pre-treatment system.	Added to Section 4.3 only. Accepted.	
19	13-14	4.3		Specify the depth of the pump intakes. For example, in the center of the well screen, at a certain depth above the bottom, elsewhere? Include field standard operating procedures, equipment calibration plans, and field logs as an appendix.	Samples will be collected from the mid-screen location at each well, this information was added to the second bullet in Section 4.3. A reference to the SOPs and equipment calibration plans present in the Performance Monitoring Plan & Revised QAPP has been add to the last paragraph of Section 4.3. An additional Attachment (Attachment 4) has been added to the document and includes the groundwater sampling form to be used during sampling.	Accepted	

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20	15	5		EPA would like the title of the report to be, "Pre-CMS Conditions Report," or something similar since "current" time eventually will become outdated. In either this work plan or the report, include an appendix of all the well logs. In the report include tables by which we can compare the recent results with previous data from those same wells and parameters.	The report name has been updated to be "Pre-CMS Conditions Report." The report will include an appendix with well logs and the tables requested in the comment.	Accepted Additionally, as we discussed, add information to the Reporting section to explain whether any additional data collected will be part of the Round 91 report, or if it will only be presented in the monthly progress and Pre-CMS Conditions Report.	
21		Table 1		Please clarify in the work plan why there are two different metals analyses to be used in this data collection, or the reason why you would not use the analysis which includes thallium for all the metals analyses.	A foot note has been added to Table 1 indicating that Thallium is being analyzed at locations required under the PMP, but not at other location because Thallium has not been detected during groundwater sampling in the last 5 years.	Accepted. As we discussed, the lab charges by the metal and Thallium has not been detected historically.	
22		Tables 1 and 2		EPA suggests replacing Table 1 with Table 2. The only difference between the two is that Table 2 includes the rationale for not sampling MW-20. While that information is somewhat useful, it's the only well not being sampled that's included in Table 2.	The tables have been combined as suggested.	Accepted but spell check recommended	
23		Table 2		Silica is not included for MW-45 or MW-46. The rationale in Table 2 for other wells for which silica applies is, "assessment of geochemical parameters to aid in assessing CO2 neutralization outside the barrier wall." It's unclear why MW-45 and MW-46 are not selected for silica. Either add the analysis for these wells or explain why they are not being sampled for silica.	pH in wells MW-45 and MW-46 is neutral and values have been stable since 2006 (see trends provided in Appendix C of 2020 Annual Report). Silica analysis was selected for locations with elevated pH.	Accepted	
24		Table 2		For wells DM-8, MW-22, MW-27, MW-28, MW-38R, MW-44, MW-47, and MW-49 -- include rationale for the SVOC analysis. For example, MW-22 is in the "pentachlorophenol handling area," like DM-4 and EX-1.	Rationale has been added to Table 1. Locations represent areas either in or near areas of the site where SVOCs were historically detected or known to be handled, and also provide a reasonable site-wide dataset inclusive of near-river locations.	Accepted	
25		Figures 3 and 4		EPA appreciates the addition of the figures showing historic structures with the monitoring wells and other features. In Figure 4, the difference between the purple and pink shading is unclear. Add both to the legend. Per the 1998 Interim Measures Report, the location of the PCB excavation was near the south side of the autoclave building (#14 on historical maps, Figures 3 and 4) not the compressor pad (#18/19 on historical maps, Figures 3 and 4). Adjust the figure accordingly.	The two colors were initially used in Figure 4 because two areas overlapped. Shading has been modified and added to the legend per the comment. With regards to the location of the PCB excavation - we reviewed the 1998 report and also a 2004 Geomatrix report that pulled various historical maps together. See attached summary and historical maps.	Accepted As we discussed, the 1998 report causes confusion because of a lack of proper mapping, and the use of building names is adding to this confusion. EPA accepts DOF's interpretation of the excavation locations based on in-depth research of historical information. The location of the excavation at the compressor pad instead of the autoclave building does not affect the locations selected for PCB sampling in this Pre-CMS work plan. DOF has offered to include additional information with this spreadsheet about App IX groundwater sampling in Round 1 at 8 locations	
26		Figure 7; Attachment 1		In Attachment 1, Figure 3-21 shows copper concentrations in well B2 U more than 100x the PRG. But the well doesn't appear on Figure 7 or on Attachment 1 Figure 5. What is the status of this well? If the well hasn't been abandoned and is functional, it might make sense to collect a sample in B2 U for metals also. Include this well as suggested or provide a response to this comment explaining why it is not to be included.	Well B2 was abandoned historically and carried over on maps. The well is no longer present and cannot be sampled.	Accepted	

Work Plan Comment 25 Background Information

The April 8, 1998 Interim Measures Report prepared for Rhodia Figure 1 shows the Compressor Pad Excavation and the locations of samples PE-2A and PE-7A with PCB concentrations of 1.93 mg/kg and 2.42 mg/kg, respectively. Those sample locations PE-2A & PE-7A are also shown on Figure 2-4 (Soil Sample Location Map) of the November 2004 Geomatrix Draft Corrective Measures Study Uplands in relation to historical buildings. The location of this excavation is shown to be on the northwest corner of location 19 on Figures 3 & 4 of the Draft Pre-CMS Data Collection Work Plan, historically referred to as the Compressor Shed.

The 1998 Rhodia report also provides locations of samples related to the piping trench excavation (Figures 2 & 3). Figure 3 specifically shows residual PCB location PE-N with a PCB concentration of 31.12 mg/kg on the northern sidewall below the 8" clay pipe. This excavation area is shown on Figure 2-4 of the 2004 Geomatrix document mentioned above. The excavation is shown to be located on the southeast corner of building 15, historically known as the Oil Storage Area, which is connected to the Autoclave Building (Location 14 on Figures 3 & 4 of the Pre-CMS Data Collection Work Plan).

Based on these historical maps, the PCB compressor pad excavation was shown in the Draft Pre-CMS Data Collection Work Plan near location 19 and the PCB Piping Trench Excavation near locations 14/15.

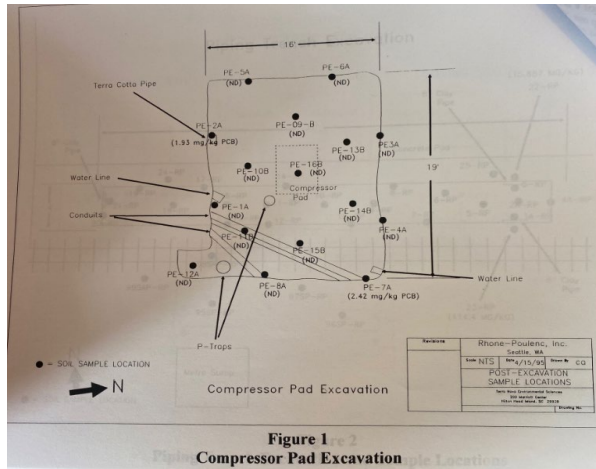


Figure 1
Compressor Pad Excavation

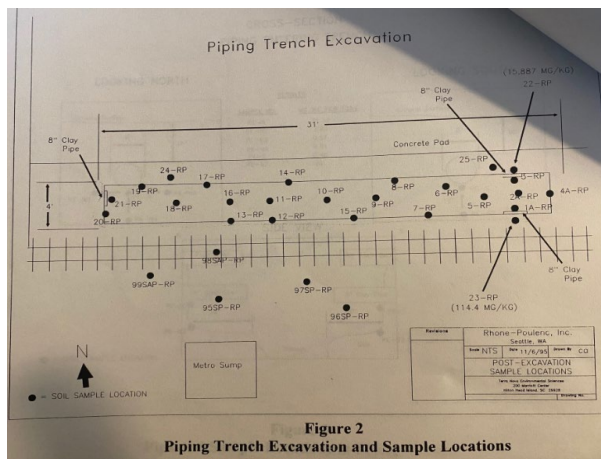


Figure 2
Piping Trench Excavation and Sample Locations

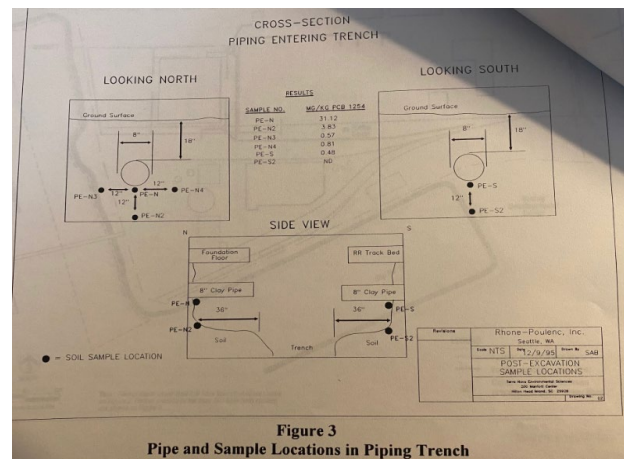


Figure 3
Pipe and Sample Locations in Piping Trench

**EPA Comments for the
Revised Quality Assurance Project Plan - Draft Pre-CMS Data Collection, dated April 5, 2021
Former Rhone Poulenc Facility, WAD 00928 2302**

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1		Distribution List		Add Kelly Bottem of Analytical Resources, Inc. to the distribution list. Limit this list in the QAPP to key players, such as those in the project organization section; the full document deliverable distribution list does not need to be listed here.	Kelly has been added to the distribution list and key players are the only individuals listed in the section, per the Organization Chart.	Accepted	
2		1, Project Organization Chart		Patrick Hsieh, and James Mc Ateer of QA/QC Solutions, LLC and their responsibilities are missing from this section. Please add them accordingly. EPA recommends also clarifying that Tasya Gray and Natasya Gray are the same person with two different spellings; or choose one spelling for consistency. It's not necessary to include Jennifer MacDonald in the Project Organization Chart as she is not part of the EPA technical team.	Patrick Hsieh and James McAteer have been added to the text section requested with their respective roles discussed. Natasya Gray has been identified in the text and any reference to Tasya has been removed. Jennifer MacDonald has been removed from the Organization Chart.	Accepted	
3	3	1.5		Limit the names in this section to Janette Knittel and Natasya Gray.	The only individuals listed are those requested.	Accepted	
4	3-4	2		Please state the decision(s) to be made, actions to be taken, or outcomes expected from the information to be obtained from this work; or refer to the sections in the work plan where this information is provided.	A new Section 2.1 has been added to the QAPP to include this information.	Accepted	
5	3-4	2		This project does not include soil sampling, therefore references to such should be removed here and elsewhere as needed. Also, this QAPP must cover only work to implement the HCIM PMP and Pre-CMS Data Collection work plan and not unknown future work to complete the CMS. Correct the second sentence to read, "This QAPP was developed to address tasks related to performance monitoring as part of the HCIM, and groundwater analyses conducted per the Pre CMS Data Collection Work Plan."	The text has been revised as requested.	Accepted	
6	4	2	fifth paragraph	Add "study" to the title of "Draft Corrective Measures Work Plan"	The text has been revised as requested.	Accepted	
7	4	2	last sentence	"Additional details about the current project phase are provided in Section A6." There is no section labeled A6 in the QAPP or the work plan. Correct accordingly.	The reference has been updated to refer to Section 3.	Accepted	
8	5	3	first sentence	As in the comment for Section 2, this project does not include soil sampling, therefore all references to such should be removed here and elsewhere as needed. Also, regarding "future" sampling, the QAPP should be written to adhere to the work plans that have already been developed and submitted, and not include any that are in development or waiting to be developed. If future work plans have different purposes and data quality objectives than those in the current QAPP, then they must have a QAPP written for those objectives. Therefore, correct the first sentence of Section 3 to state, for example, "Groundwater samples will be collected to support implementation of the Pre CMS Data Collection Work Plan in addition to the HCIM."	The text has been revised as requested.	Accepted	
9	5	3.1	third bullet	Again, If a future investigation is required then the Respondents will need to update the QAPP or create a new one to include that work. This QAPP is limited to the work being conducted under the HCIM PMP and the Pre-CMS Data Collection Work Plan.	The text has been revised as requested.	Accepted	

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10	5	3.2		<p>This section needs to be about implementation of the Pre-CMS Data Collection Work Plan, not future potential investigations related to corrective measures. Correct the title of this section to, "Pre-CMS Data Collection," and correct the text accordingly. Remove the reference to the Pilot Study Work Plan.</p> <p>Again, soil samples are not collected under this investigation. Correct the text accordingly.</p> <p>Similar to how Section 3.1 presents the tasks to be completed, add the work to be done in Section 3.2, such as dioxin/furans and PCB analyses.</p>	The text has been revised as requested.	<p>The last part of this comment does not appear to be addressed. Section 3.2 needs to state the additional analyses that will be conducted under the Pre-CMS Data Collection (e.g. dioxin/furans and PCBs).</p> <p>This section refers to the work plan "which is currently being prepared." Replace this statement with a reference to the work plan instead (DOF, 2021) and add the work plan as a reference to Section 10. Ditto for adding the QAPP reference to the work plan.</p> <p>Please correct the title of Section 3.2 to "Pre-CMS Data Collection" (or</p>	
11		7		The QAPP should refer to the pre-CMS work plan Section 4, Section 6, and Figure 5, etc., for sampling information. The QAPP should reference Table 1 in the workplan for the samples to be collected for this specific project. In addition, a separate table should detail the appropriate containers, preservation, and holding time requirements for each analysis for clarity and for ease of data validation per section 9.2 of the QAPP.	References to these sections and figures have been added to section 7 of the QAPP. A new Table 3 has been added to the QAPP to summarize requested information.	Add the work plan reference (DOF, 2021) to the second sentence of Section 7. Also add the PMP and work plan references to Section 7.1	
12	12	7.3	last paragraph	The sample custodian should also measure the temperature inside the cooler.	The text has been revised as requested.	Accepted	
13		7.5.1.3, Appendix A		There appears to be a different RPD listed in two sections: 7.5.1.3 lists a groundwater field duplicate RPD of 30%, while Appendix A gives 20% RPD for metals, 25% for dioxins/furans, and 30% for all other organics. Please correct.	QAPP text has been corrected to match the RPDs provided in the Appendix.	Accepted	
14	13	7.5.1.4, Table 1		Section 7.5.1.4 discusses MS/MSDs as part of Field Quality Control, but are not included in Table 1 under the Field Quality Control heading. Please revise or clarify.	A clarifying footnote has been added to Table 1 to make it clear that while the MS/MSD is a lab quality control sample, it necessitates extra sample volume collection in the field.	Accepted	
15	18, 21	7.10, 9.2		Clarify who will perform the data validation: the "QA Leader" referenced in 9.2, or the Data Validator from QA/QC Solutions, LLC in 7.10, (or both with different functions?)	James McAteer will perform validation of the data, the QA Leader will coordinate Lab and validation efforts. Text has been adjusted to make this clear.	Accepted	
16		Table 2		Highlight and indicate with a footnote where reporting limits do not meet the goal and exceed the PRGs (for example, aroclors).	PRGs less than the MRL have been bolded and a footnote has been added to the table to define this condition.	Accepted, although the bold does not appear prominently and may be missed.	
17		Table 2		The note "(see notes re: hardness)" is a carryover from the PRG tables and should be removed here to avoid confusion.	This note has been removed from the table	Accepted	
18		Table 2		Units are missing from Volatile Organic Compounds by EPA Method 8260D on page 35 of the pdf. Please correct.	The units have been added to Table 2 for VOCs.	Accepted	